SEQUENCE LISTING

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Glu Thr Glu Ser Gly Pro Pro Val Glu Arg Cys Gly Val Leu Ser Lys
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Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
            35                  40                  45


Asn Asn Ala Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
    50                  55                  60


Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
65                  70                  75                  80


Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
                85                  90                  95


Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
            100                 105                 110


Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
            115                 120                 125


Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
    130                 135                 140
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Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
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Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
                165             170             175

Thr Leu Gln Lys Tyr Phe Asp Ala Cys Ala Asp Ala Val Ser Lys Asp
            180             185             190

Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
        195             200             205

Thr Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys
    210             215             220

Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
225             230             235             240

Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
            245             250             255

Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser
            260             265             270

Trp Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu
        275             280             285

Glu Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe
        290             295             300

Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
305             310             315             320

Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
            325             330             335

Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser
            340             345             350

Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
        355             360             365

Gln Lys Val Glu Glu Met Val Gln Asn His Met Thr Tyr Ser Leu Gln
    370             375             380

Asp Val Gly Gly Asp Ala Asn Trp Gln Leu Val Val Glu Glu Gly Glu
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2

385   390   395   400

Met Lys Val Tyr Arg Arg Glu Val Glu Glu Asn Gly Ile Val Leu Asp
              405   410   415

Pro Leu Lys Ala Thr His Ala Val Lys Gly Val Thr Gly His Glu Val
              420   425   430

Cys Asn Tyr Phe Trp Asn Val Asp Val Arg Asn Asp Trp Glu Thr Thr
          435   440   445

Ile Glu Asn Phe His Val Val Glu Thr Leu Ala Asp Asn Ala Ile Ile
    450   455   460

Ile Tyr Gln Thr His Lys Arg Val Trp Pro Ala Ser Gln Arg Asp Val
465   470   475   480

Leu Tyr Leu Ser Val Ile Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp
              485   490   495

Pro Glu Thr Trp Ile Val Cys Asn Phe Ser Val Asp His Asp Ser Ala
          500   505   510

Pro Leu Asn Asn Arg Cys Val Arg Ala Lys Ile Asn Val Ala Met Ile
          515   520   525

Cys Gln Thr Leu Val Ser Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg
    530   535   540

Asp Asn Ile Leu Cys Lys Ile Thr Tyr Val Ala Asn Val Asn Pro Gly
545   550   555   560

Gly Trp Ala Pro Ala Ser Val Leu Arg Ala Val Ala Lys Arg Glu Tyr
              565   570   575

Pro Lys Phe Leu Lys Arg Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala
              580   585   590

Gly Lys Pro Ile Leu Phe
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Glu Thr Glu Ser Gly Pro Pro Val Glu Arg Cys Gly Val Leu Ser Lys
            20              25              30

Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
            35              40              45

Asn Asn Ala Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
    50              55              60

Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
65              70              75              80

Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
            85              90              95

Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
            100             105             110

Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
    115             120             125

Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
    130             135             140

Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
145             150             155             160

Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
            165             170             175

Thr Leu Gln Lys Tyr Phe Asp Ala Cys Ala Asp Ala Val Ser Lys Asp
            180             185             190

Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
    195             200             205

Thr Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys
    210             215             220

Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
225             230             235             240
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4

Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
            245   250   255

Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser
            260   265   270

Trp Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu
    275   280   285

Glu Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe
    290   295   300

Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
305   310   315   320

Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
            325   330   335

Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser
            340   345   350

Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
    355   360   365

Gln Lys Pro Tyr Ser Arg Ser Ser Ser Met Ser Ser Ile Asp Leu Val
    370   375   380

Ser Ala Ser Asp Asp Val His Arg Phe Ser Ser Gln Val Glu Glu Met
385   390   395   400

Val Gln Asn His Met Thr Tyr Ser Leu Gln Asp Val Gly Gly Asp Ala
            405   410   415

Asn Trp Gln Leu Val Val Glu Glu Gly Glu Met Lys Val Tyr Arg Arg
            420   425   430

Glu Val Glu Glu Asn Gly Ile Val Leu Asp Pro Leu Lys Ala Thr His
            435   440   445

Ala Val Lys Gly Val Thr Gly His Glu Val Cys Asn Tyr Phe Trp Asn
    450   455   460

Val Asp Val Arg Asn Asp Trp Glu Thr Thr Ile Glu Asn Phe His Val
465   470   475   480

Val Glu Thr Leu Ala Asp Asn Ala Ile Ile Ile Tyr Gln Thr His Lys

Arg Val Trp Pro Ala Ser Gln Arg Asp Val Leu Tyr Leu Ser Val Ile
        500   505   510

Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp Pro Glu Thr Trp Ile Val
        515   520   525

Cys Asn Phe Ser Val Asp His Asp Ser Ala Pro Leu Asn Asn Arg Cys
        530   535   540

Val Arg Ala Lys Ile Asn Val Ala Met Ile Cys Gln Thr Leu Val Ser
545   550   555   560

Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg Asp Asn Ile Leu Cys Lys
            565   570   575

Ile Thr Tyr Val Ala Asn Val Asn Pro Gly Gly Trp Ala Pro Ala Ser
        580   585   590

Val Leu Arg Ala Val Ala Lys Arg Glu Tyr Pro Lys Phe Leu Lys Arg
        595   600   605

Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala Gly Lys Pro Ile Leu Phe
        610   615   620

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<212> PRT
<213> CHO-K1

<400> 3

Met Ser Asp Asn Gln Ser Trp Asn Ser Ser Gly Ser Glu Glu Asp Pro
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Glu Thr Glu Ser Gly Pro Pro Val Glu Arg Cys Gly Val Leu Ser Lys
            20   25   30

Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
        35   40   45

Asn Asn Thr Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
        50   55   60

Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
65   70   75   80

Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
            85   90   95

Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
            100   105   110

Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
            115   120   125

Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
    130   135   140

Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
145   150   155   160

Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
            165   170   175

Thr Leu Gln Lys Tyr Phe Asp Val Cys Ala Asp Ala Val Ser Lys Asp
            180   185   190

Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
            195   200   205

Thr Thr Arg Ser Asp Gly Asp Phe Leu His Asn Thr Asn Gly Asn Lys
    210   215   220

Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
225   230   235   240

Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
            245   250   255

Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Glu Ser
            260   265   270

Trp Gln Lys Arg His Asp Lys Glu Met Glu Lys Arg Arg Arg Leu Glu
            275   280   285

Glu Ala Tyr Lys Asn Ala Met Ala Glu Leu Lys Lys Lys Pro Arg Phe
            290   295   300

Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
305   310   315   320

7

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Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
            325         330             335

Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Pro
            340             345             350

Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
            355             360             365

Gln Lys Val Glu Glu Met Val Gln Asn His Met Thr Tyr Ser Leu Gln
    370             375             380

Asp Val Gly Gly Asp Ala Asn Trp Gln Leu Val Val Glu Glu Gly Glu
385             390             395             400

Met Lys Val Tyr Arg Arg Glu Val Glu Glu Asn Gly Ile Val Leu Asp
            405             410             415

Pro Leu Lys Ala Thr His Ala Val Lys Gly Val Thr Gly His Glu Val
            420             425             430

Cys Asn Tyr Phe Trp Ser Val Asp Val Arg Asn Asp Trp Glu Thr Thr
            435             440             445

Ile Glu Asn Phe His Val Val Glu Thr Leu Ala Asp Asn Ala Ile Ile
    450             455             460

Ile Tyr Gln Thr His Lys Arg Val Trp Pro Ala Ser Gln Arg Asp Val
465             470             475             480

Leu Tyr Leu Ser Ala Ile Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp
            485             490             495

Pro Glu Thr Trp Ile Val Cys Asn Phe Ser Val Asp His Asp Ser Ala
            500             505             510

Pro Leu Asn Asn Arg Cys Val Arg Ala Lys Ile Asn Val Ala Met Ile
            515             520             525

Cys Gln Thr Leu Val Ser Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg
    530             535             540

Asp Asn Ile Leu Cys Lys Ile Thr Tyr Val Ala Asn Val Asn Pro Gly
545             550             555             560

Gly Trp Ala Pro Ala Ser Val Leu Arg Ala Val Ala Lys Arg Glu Tyr
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8

Pro Lys Phe Leu Lys Arg Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala
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Gly Lys Pro Ile Leu Phe
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Met Ser Asp Asn Gln Ser Trp Asn Ser Ser Gly Ser Glu Glu Asp Pro
1   5   10   15

Glu Thr Glu Ser Gly Pro Pro Val Glu Arg Cys Gly Val Leu Ser Lys
            20   25   30

Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
            35   40   45

Asn Asn Thr Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
        50   55   60

Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
65   70   75   80

Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
                85   90   95

Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
            100   105   110

Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
            115   120   125

Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
        130   135   140

Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
145   150   155   160

Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
                165   170   175

9

```
Thr Leu Gln Lys Tyr Phe Asp Val Cys Ala Asp Ala Val Ser Lys Asp
        180                 185             190

Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
        195                 200             205

Thr Thr Arg Ser Asp Gly Asp Phe Leu His Asn Thr Asn Gly Asn Lys
    210             215                 220

Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
225                 230             235                 240

Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
                245             250             255

Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Glu Ser
        260                 265             270

Trp Gln Lys Arg His Asp Lys Glu Met Glu Lys Arg Arg Arg Leu Glu
        275                 280             285

Glu Ala Tyr Lys Asn Ala Met Ala Glu Leu Lys Lys Lys Pro Arg Phe
    290             295             300

Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
305             310             315                 320

Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
                325             330             335

Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Pro
        340             345             350

Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
        355             360             365

Gln Lys Pro Tyr Ser Arg Ser Ser Ser Met Ser Ser Ile Asp Leu Val
        370             375             380

Ser Ala Ser Asp Asp Val His Arg Phe Ser Ser Gln Val Glu Glu Met
385                 390             395                 400

Val Gln Asn His Met Thr Tyr Ser Leu Gln Asp Val Gly Gly Asp Ala
                405             410             415
```

10

Asn Trp Gln Leu Val Val Glu Glu Gly Glu Met Lys Val Tyr Arg Arg
            420   425   430

Glu Val Glu Glu Asn Gly Ile Val Leu Asp Pro Leu Lys Ala Thr His
            435   440   445

Ala Val Lys Gly Val Thr Gly His Glu Val Cys Asn Tyr Phe Trp Ser
    450   455   460

Val Asp Val Arg Asn Asp Trp Glu Thr Thr Ile Glu Asn Phe His Val
465   470   475   480

Val Glu Thr Leu Ala Asp Asn Ala Ile Ile Ile Tyr Gln Thr His Lys
            485   490   495

Arg Val Trp Pro Ala Ser Gln Arg Asp Val Leu Tyr Leu Ser Ala Ile
            500   505   510

Arg Lys Ile Pro Ala Leu Thr Glu Asn Asp Pro Glu Thr Trp Ile Val
            515   520   525

Cys Asn Phe Ser Val Asp His Asp Ser Ala Pro Leu Asn Asn Arg Cys
    530   535   540

Val Arg Ala Lys Ile Asn Val Ala Met Ile Cys Gln Thr Leu Val Ser
545   550   555   560

Pro Pro Glu Gly Asn Gln Glu Ile Ser Arg Asp Asn Ile Leu Cys Lys
                565   570   575

Ile Thr Tyr Val Ala Asn Val Asn Pro Gly Gly Trp Ala Pro Ala Ser
            580   585   590

Val Leu Arg Ala Val Ala Lys Arg Glu Tyr Pro Lys Phe Leu Lys Arg
            595   600   605

Phe Thr Ser Tyr Val Gln Glu Lys Thr Ala Gly Lys Pro Ile Leu Phe
    610   615   620

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11

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caggatcgtt gggtagtttt gaaaaataat gctctgagtt actacaaatc tgaagatgaa    180

acagagtatg gctgcagagg atccatctgt cttagcaagg ctgtcatcac acctcacgat    240

tttgatgaat gtcgatttga tattagtgta aatgatagtg tttggtatct tcgtgctcag    300

gatccagatc atagacagca atggatagat gccattgaac agcacaagac tgaatctgga    360

tatggatctg aatccagctt gcgtcgacat ggctcaatgg tgtccctggt gtctggagca    420

agtggctact ctgcaacatc cacctcttca ttcaagaaag gccacagttt acgtgagaag    480

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gaagatgatg aagatgactt tcctacaacg cgttctgatg gtgacttctt gcatagtacc    660

aacggcaata agaaaagtt atttccacat gtgacaccaa aaggaattaa tggtatagac    720

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gagttctttg atgctgttga agctgctctt gacagacaag ataaaataga agaacagtca   1020

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12

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acagagtatg gctgcagagg atccatctgt cttagcaagg ctgtcatcac acctcacgat       240

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actgagaaga aaagaagaac agaggaagca tataaaaatg caatgacaga acttaagaaa       900

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aatgaccctg aaacttggat agtttgtaat ttttctgtgg atcatgacag tgctcctcta      1620

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13

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14

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aagaaggaga aatgaaggta tacagaagag aagtcgaaga aaatggaatt gttctggatc     1680

ctttgaaagc tacccatgca gttaaaggtg ttacaggaca cgaagtctgc aattactttt     1740

ggagtgttga tgttcgcaat gactgggaaa ctactataga aaacttccat gtagtggaaa     1800

cattagctga taatgcaatc atcatttatc aaacgcacaa gagagtgtgg cctgcttctc     1860

agagagatgt actgtatctt tctgctattc gaaagatccc agccttgact gagaacgacc     1920

ctgagacttg gatagtttgt aatttttctg tggatcatga cagcgctcct ctgaacaatc     1980

gatgtgtccg tgccaaaatc aatgttgcta tgatttgtca aaccttagta agcccaccag     2040

agggaaacca ggaaataagc agagacaaca ttctgtgcaa gattacatat gtagctaatg     2100

tgaacccagg aggatgggca ccagcctcgg tgttaagagc agtggcaaaa cgagaatatc     2160

ctaaatttct aaaacgtttt acttcttacg tccaagaaaa aactgcagga aaaccaattt     2220

tgtttttagta tgtacagtga ctgaagcaag gctgtgtgac attccatgtt ggagaaagaa    2280

agaagaaaaa ttgagttctc taagctggaa cataggatct acagccttgt ccatggccca     2340

agaagaatca ttgcaatagt aaagctgggt atctaacact agccatctcc tgatagatct     2400

ccttgctcaa tgtgtaacta taaatacatg taaaatcaca tgcaaaaaaa aaaaaaaaaa     2460

aaaaaaaaaa aaa                                                         2473


<210>    8
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<212>    DNA
<213>    CHO-K1

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gggccgcctg tggagcgctg cggggtcctc agcaagtgga caaactatat tcatgggtgg     120

caggatcgtt gggtagtttt gaaaaataat actttgagtt actacaaatc tgaagatgag     180

acagagtacg gttgcagggg atccatctgt cttagcaagg ctgtgatcac acctcatgat     240

tttgatgaat gtcggtttga tatcagtgtt aatgatagtg tttggtatct tcgtgctcag     300

gacccagatc acagacagca gtggatagat gccattgaac agcacaagac tgaatcagga     360

tatggatctg agtccagctt acgtagacat ggctcaatgg tgtcactggt gtctggagca     420

agtgggtact ctgctacatc cacatcttca ttcaagaaag gacacagttt acgtgagaaa     480

ttggctgaaa tggaaacttt tagagacatc ttatgtagac aagttgacac tctccaaaag     540
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tactttgatg tctgtgctga tgctgtctcc aaggatgaac ttcaaaggga taaagtggta    600

gaagatgatg aagatgactt ccctacaact cgttctgatg gagacttttt gcacaatacc    660

aatggtaata aggaaaaatt atttccacat gtaacccca aaggaattaa tggtatagac    720

tttaaagggg aagcaataac ttttaaagca actactgctg gaatccttgc tacactttct    780

cattgtattg aattaatggt aaaacgggaa gagagctggc aaaaaagaca tgataaggaa    840

atggagaaga gaagacgatt agaggaagca tacaagaatg caatggcaga gcttaagaag    900

aaaccccgtt ttggagggcc tgattatgaa gaaggtccga acagtctgat taatgaggag    960

gagttctttg atgctgttga agctgctctt gacagacaag ataaaataga ggaacagtca    1020

cagagcgaga aggtcaggtt acactggcct acacctttgc catctggaga tgccttttct    1080

tctgttggga cccatagatt tgtacaaaag ccctatagtc gctcttcctc catgtcttcc    1140

attgatctag tcagtgcctc tgacgatgtt cacagattca gctcccaggt tgaagagatg    1200

gtacagaacc acatgactta ctcattacag gatgtaggtg gtgatgcgaa ttggcaacta    1260

gttgtagaag aaggagaaat gaaggtatac agaagagaag tcgaagaaaa tggaattgtt    1320

ctggatcctt tgaaagctac ccatgcagtt aaaggtgtta caggacacga agtctgcaat    1380

tacttttgga gtgttgatgt tcgcaatgac tgggaaacta ctatagaaaa cttccatgta    1440

gtggaaacat tagctgataa tgcaatcatc atttatcaaa cgcacaagag agtgtggcct    1500

gcttctcaga gagatgtact gtatctttct gctattcgaa agatcccagc cttgactgag    1560

aacgaccctg agacttggat agtttgtaat ttttctgtgg atcatgacag cgctcctctg    1620

aacaatcgat gtgtccgtgc caaaatcaat gttgctatga tttgtcaaac cttagtaagc    1680

ccaccagagg gaaaccagga aataagcaga gacaacattc tgtgcaagat tacatatgta    1740

gctaatgtga acccaggagg atgggcacca gcctcggtgt taagagcagt ggcaaaacga    1800

gaatatccta aatttctaaa acgttttact tcttacgtcc aagaaaaaac tgcaggaaaa    1860

ccaattttgt tt                                                          1872


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<220>
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16

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<212>  DNA
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17

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<220>
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tggtgcagaa cc   72

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<400> 17
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<210> 18
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18

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<210>   21
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<400>   21
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<220>
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<400>   22
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<210>   23
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<220>
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<210>   24
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<210>   25
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19

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<220>
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<210> 27
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<220>
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<400> 27
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<210> 28
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<210> 30
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20

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